

WHAT IS CLAIMED IS:

1. A communication apparatus, comprising:
a portable transmitter including:
at least one operating switch,
a first storing unit containing an ID code
registered therein, the ID code including a plurality of ID
code sections, each ID code section corresponding to an
operation of said at least one operating switch, a
first control unit,
an ID registering mode setting mechanism to set the
first control unit to an ID registration mode, and
a transmitting unit to transmit an electromagnetic
signal having the ID code; and
a receiver including:
a receiving unit to receive the electromagnetic
signal having the ID code,
a second storing unit containing a reference
code stored therein, and
a control signal generating unit;
said receiver comparing said ID code within the
electromagnetic signal with said reference code and supplying
control signals from said control signal generating unit to
a controlled device when said ID code and said reference

code match;

when said first control unit is set to the ID registration mode by said ID registration mode setting mechanism and said at least one operating switch is operated, the ID code sections are supplied to said first storing unit to register as said ID code.

2. A communication apparatus according to claim 1, wherein when said first control unit is set to the ID registration mode by said ID registration mode setting mechanism, said at least one operating switch is operated multiple times before the ID code sections register as said ID code.

3. A communication apparatus according to claim 2, wherein the ID code sections are sequentially supplied to said first storing unit.

4. A communication apparatus according to claim 1, wherein said ID registration mode setting mechanism comprises said at least one operating switch and a mode control unit within said first control unit to set the ID registration mode from the operation of said at least one

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5. A communication apparatus according to claim 4, further comprising at least two operating switches, said ID registration mode setting mechanism further comprising operation of said at least two operating switches in a predetermined order.

wherein said ID code sections are formed by counter values of said counter.

8. A communication apparatus according to claim 7,
wherein said notifying mechanism is a light-emitting diode.

9. A communication apparatus according to claim 1,
wherein when said first control unit is set to the ID

10. A communication apparatus according to claim 2, wherein when said first control unit is set to the ID registration mode by said ID registration mode setting mechanism and said at least one operating switch is not operated multiple times within a predetermined time period, said first control unit reverts out of the ID registration mode.

a portable transmitter including:

~~a first storing unit containing an ID code~~

a second storing unit,

~~an ID registering mode setting mechanism to set the~~

a transmitting unit to transmit an electromagnetic

signal having the ID code; and

a receiver including:

a receiving unit to receive the electromagnetic signal having the ID code,

a third storing unit containing a reference code stored therein, and

a control signal generating unit;

said receiver comparing said ID code within the received said electromagnetic signal with said reference code and supplying control signals from said control signal generating unit to a controlled device when said ID code and said reference code match;

when said first control unit is set to the ID registration mode by said ID registration mode setting mechanism and said at least one operating switch is operated, said ID code sections are stored in said second storing unit, and when all ID code sections comprising the ID code are stored in said second storing unit, said all ID code sections are joined and transferred to said first storing unit to register as said ID code.

12. A communication apparatus according to claim 11, wherein when said first control unit is set to the ID registration mode by said ID registration mode setting

13. A communication apparatus according to claim 12, wherein the ID code sections are sequentially stored in said second storing unit.

15. A communication apparatus according to claim 14, further comprising at least two operating switches, said ID registration mode setting mechanism further comprising operation of said at least two operating switches in a predetermined order.

16. A communication apparatus according to claim 11,
said portable transmitter further comprising:
a clock generating unit to generate clock signals; and
a counter to count the clock signals generated by said

clock generating unit;

wherein said ID code sections are formed by counter values of said counter.

17. A communication apparatus according to claim 11, said portable transmitter comprising a notifying mechanism to indicate a storage state of said ID code sections.

18. A communication apparatus according to claim 17, wherein said notifying mechanism is a light-emitting diode.

19. A communication apparatus according to claim 11, wherein when said first control unit is set to the ID registration mode and said at least one operating switch is not operated within a predetermined time period, said first control unit reverts out of the ID registration mode.

20. A communication apparatus according to claim 12, wherein when said first control unit is set to the ID registration mode by said ID registration mode setting mechanism and said at least one operating switch is not operated multiple times within a predetermined time period, said first control unit reverts out of the ID registration mode.

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21. A communication apparatus, comprising:

- a portable transmitter including: at least one operating switch,
- a first storing unit containing an ID code registered therein, the ID code including a plurality of ID code sections, each ID code section corresponding to an operation of said at least one operating switch,
- a second storing unit,
- a first control unit,
- an ID registering mode setting mechanism to set the first control unit to an ID registration mode, and
- a transmitting unit to transmit an electromagnetic signal having the ID code; and
- a receiver including:
 - a receiving unit to receive the electromagnetic signal having the ID code,
 - a third storing unit containing a reference code stored therein, and
 - a control signal generating unit;

said receiver comparing said ID code within the received said electromagnetic signal with said reference code and supplying control signals from said control signal generating unit to a controlled device when said ID code and said reference code match;

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when said first control unit is set to the ID registration mode by said ID registration mode setting mechanism and said at least one operating switch is operated, said ID code sections are stored in said second storing unit except for a final ID code section, and when the final ID code section is formed, the ID code sections stored in said second storing unit are read out, the ID code sections read out from said second storing unit and said last ID code section are joined and transferred to said first storing unit to register as said ID code.

22. A communication apparatus according to claim 21, wherein when said first control unit is set to the ID registration mode by said ID registration mode setting mechanism, said at least one operating switch is operated multiple times before the ID code sections register as said ID code.

23. A communication apparatus according to claim 22, wherein the ID code sections except for the final ID code section are sequentially stored in said second storing unit.

24. A communication apparatus according to Claim 23, wherein said ID registration mode setting mechanism comprises said at least one operating switch and a mode

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25. A communication apparatus according to Claim 24, further comprising at least two operating switches, said ID registration mode setting mechanism further comprising operation of said at least two operating switches in a predetermined order.

a clock generating unit to generate clock signals; and
a counter to count the clock signals generated by said
clock generating unit;

27. A communication apparatus according to Claim 21, said portable transmitter comprising a notifying mechanism to indicate a storage state of said ID code sections.

29. A communication apparatus according to claim 21,

30. A communication apparatus according to claim 22, wherein when said first control unit is set to the ID registration mode by said ID registration mode setting mechanism and said at least one operating switch is not operated multiple times within a predetermined time period, said first control unit reverts out of the ID registration mode.